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Mr. Dickson, Mr. Ingham, Dr. Hays, Dr. Jayne and Mr. Pettit were appointed as the Committee.

A report was presented from the Special Committee appointed on the paper of Mr. Rhoads, entitled "Contributions to a Revision of the North American Beavers, Otters and Fishes," in favor of its publication in the *Transactions*, and it was so ordered.

Stated Meeting, May 20, 1898.

Vice-President PEPPER in the Chair.

Present, 35 members.

Donations to the Library were laid on the table, and thanks were ordered for them.

Prof. Albert H. Smyth, presenting the portrait of Mr. Frederick Fraley, said :

It had been the intention and the hope of Mr. J. G. Rosengarten to be present this evening and in accordance with the request of the subscribers, to present to the American Philosophical Society two portraits, one of Mr. Frederick Fraley, our honored President, the other of Prof. John Peter Lesley, for many years a Vice-President of this Society.

But Mr. Rosengarten is prevented from being here, and has asked me to act in his stead.

In the long and distinguished history of the American Philosophical Society, fifteen Presidents, from Franklin to Fraley, have successively presided over its meetings and guided its policy. Portraits of all these—Franklin, Rittenhouse, Jefferson, Wistar, the Pattersons, the Baches, Tilghman, Duponceau, Chapman, Kane and Wood—hang upon our walls, together with many of that illustrious company who have contributed to the scientific and the literary glory of the Philosophical Society.

A little while ago several of the friends of Mr. Fraley, within and without this Society, desiring to express, as Hamlet says, their "love and friending" to him, and to place in the Hall of the Society over which he has presided with such zeal and success some

token of their admiration and respect, learned that an excellent portrait of him had been painted.

Subscriptions were promptly made to a fund for the purchase of it and the portrait was obtained.

Upon the twenty-eighth of this month, Mr. Fraley, whose extraordinary activities cover well-nigh a century of time, will celebrate his ninety-fourth birthday; and this therefore being the meeting of the Society nearest to that happy anniversary has been chosen for the formal presentation.

In behalf of the subscribers, I present to the American Philosophical Society this portrait of Mr. Frederick Fraley.

Prof. Prime moved that the thanks of the Society be tendered to those gentlemen who presented the portraits, and that the said portraits shall be hung on the walls of the Hall, and shall be under the care of the Curators.

HAMPTON L. CARSON, Esq., in accepting the portrait of Mr. Fraley, in behalf of the Society, said:

The agreeable duty has been assigned to me of speaking in support of the Resolution of acceptance in behalf of the Society, and I respond with peculiar pleasure; first, because I am aware of the value of the services rendered to us for so many years by our venerable and venerated President, and next, because I cherish for him personally the most affectionate and reverential regard. I look back over thirty years of my own recollections, and I see him foremost in all measures tending to promote the commerce, finance, manufactures and mechanic arts of Philadelphia, and a leader in all movements to extend her civic industrial and educational influence. I look beyond into the history of the preceding forty years, and I still see him conspicuous, even at an early age, among many honored men who have long since passed to their reward.

At the age of twenty he was one of the founders of the Franklin Institute, and has been a member for seventy-four years. At the age of thirty he was a member of our City Council, serving as Chairman of the Finance Committee, a pilot standing at the helm with clear head and steady hand, during the troubled period of 1837. He was an earnest advocate, in opposition to the views of such men as Horace Binney, of the introduction of gas as a means of lighting our City. He was at his post in the State Senate

during the Buckshot War, and was active in drafting the laws called for by our amended State Constitution. He was the author of the preamble of our Consolidation Act, and his skillful hand was present in the shaping of those sections which concerned the administration of our finances. He was a leader in the establishment of the Paid Fire Department, after having long served as a volunteer member of the old Philadelphia Hose Company. He was one of the founders of the Union Club, which developed into the splendid organization of the Union League. For forty-one years he has been a manager of the Western Saving Fund, and its President for twenty years. For forty-five years he has served as a trustee of the University of Pennsylvania. For fifty-six years he has been a member of this Society, and has been its President for eighteen years. As President of the National Board of Trade, and of our own local organization, as a member of the Board of Finance of the Centennial Commission, and in many other capacities, his voice has been raised and his influence has been exerted in unselfish devotion to the greatest of public interests.

His long and varied career stands for unbending integrity in the discharge of trust duties ; for knowledge and power in the discussion of public questions ; for breadth and liberality of opinion ; for constant progressiveness and generous hospitality to new ideas ; for lofty ideals supported by trained technical skill. He has walked on the high places of this earth with undimmed eye and steadfast courage. The loftiness of his position enabled him to see the tops of distant thoughts which men of common stature never saw. With him " Knowledge was not a couch whereon to rest a searching and restless spirit ; nor a terrace for a wandering or variable mind to walk up and down with a fair prospect ; nor a tower of state for a proud mind to raise itself upon ; nor a sort of commanding ground for strife and contention ; nor a shop for profit and sale, but a rich storehouse for the glory of the Creator and the relief of man's estate."

At the end of ninety-four years of life, with none of the intellectual infirmities of age, and without the slightest trace of acerbity of temper, he stands in the golden glow of an honorable and useful career, the central object of our affection, of our veneration and esteem.

It is fitting that his portrait should grace these walls—walls hallowed by sacred associations and cherished with filial piety.

"I would rather," said Hazlitt, "leave behind me a good portrait than a good epitaph." The sentiment is just. Those who read tombstone inscriptions are few, but those who can find inspiration in the study of a well-pictured face are many. This Society, grateful to the donors of this admirable portrait, will direct it to be hung beside those of the illustrious men who were his predecessors, in commemoration of the virtues, the talents and the services of Frederick Fraley.

Mr. SMYTH, in presenting to the Society the portrait of Prof. Lesley, said :

At the same time that the portrait of Mr. Fraley was obtained it was learned that a portrait of Prof. J. P. Lesley was obtainable; the subscription fund was immediately enlarged and the second portrait was procured. I must not omit to add that both are the admirable work of the same excellent artist—Mrs. Margaret Lesley Bush Brown, a daughter of Prof. Lesley.

In behalf of the subscribers, I present both these portraits to the American Philosophical Society.

Mr. WILLIAM A. INGHAM said :

In speaking to the resolution accepting the donation of Prof. Lesley's portrait tendered this evening to the Society my words shall be few and I hope fit.

This portrait of Prof. Lesley by his daughter is to me a most speaking likeness. It shows him as I have seen him a hundred times sitting in his chair, roused up from a reverie by some remark, whether opposing his views or corroborating them (it made little difference), but rousing him up and starting him off, active and alert on an animated discourse which might last an hour.

I have seen him thus often, and I prefer to remember him thus, if it shall so happen, that in the course of nature he shall go before me to join the majority. I am not competent (who is?) to pronounce on his eminent qualities as a geologist and scientist.

Prof. Lesley was an assistant on the First Geological Survey of the State, and has written a history of that Survey, published in Volume A of the Reports of the Second Survey.

The First Survey was completed in 1858 by the publication of the

Final Report, but some years prior to that date the corps was disbanded and Prof. Lesley had turned his attention to other matters.

He was Secretary of the American Iron and Steel Association for six years, and during that time he published *The Iron Manufacturers' Guide* (1856), which is a complete list of the active furnaces in the United States and a very complete discussion of the iron ores.

Of course much of this is now obsolete, but at the time it was the first and only manual on the subject.

About the same time he published his *Manual of Coal*.

This little book, a model of its kind, contains, first, a description of the coals of Pennsylvania, remarkable for its accuracy, and, second, a concise treatise on "Surface Geology." In this the author insists on the importance of topography as an adjunct to geology.

Prof. Spencer, in a recent address (*Popular Science Monthly*, May, 1898), says, "Geomorphy is the outgrowth of topography, which was made a science fifty or sixty years ago by Prof. J. P. Lesley and his coworkers. Its birth is graphically described by the author himself."

And from the very beginning of the Second Geological Survey, Prof. Lesley has always insisted on the importance of topography as preliminary to geology. This is shown by the repeated efforts of the Board at his instigation to obtain an appropriation for a topographical survey. The failure of these efforts will account for the fact that the Second Geological Survey is not as satisfactory as it might have been made.

It seems strange at this date that any argument should be necessary in favor of topography as preliminary to geology.

After the disbandment of the First Survey, Prof. Lesley was constantly occupied as an expert geologist—which work took him all over our State and into adjoining States. He became thoroughly familiar with every square mile of the State geologically and geographically.

In this time he made frequent professional visits to Europe, where he made acquaintance with all eminent geologists, many of whom became his life-long friends.

In one of these visits he saw that the key to the complicated structure of the Jura was to be found in Pennsylvania, and Desor came over here and learned from us how to interpret the Jura problem.

This varied professional experience, as evinced in his reports to

his employers (one of which, on the Nittany Valley ores, a model of geological work, has been published), but most of which are in the archives of his employers—his numerous publications in the PROCEEDINGS of our Society, his general repute as to familiarity with the geology of the State, combined to make him the choice for State Geologist under the act of 1874.

He was Librarian of this Society part of the time and Secretary all the time from 1858 to 1887.

He was Vice-President from 1887 to 1898.

My personal intercourse with Prof. Lesley began with the organization of the Second Geological Survey in 1874.

Since that time he as State Geologist and I as Secretary have been in the most intimate connection.

In that period of over twenty years I have been impressed with his unselfish motives, supervising the field work of his assistants with the sole idea, (1) of the good of the Survey, and (2) that every man should receive full credit for his work.

He is a thorough, unselfish, impartial man of science.

It is largely due to Prof. Lesley, in continuing across this State the work begun by Prof. Cook in New Jersey on the terminal glacial moraine, that the wonderful recent revival of interest in surface geology is due. The modern geology which attempts to account for the present condition of the earth's surface may almost be said to date from the survey of the terminal moraine.

Aside from geology, Prof. Lesley, in his Lowell lectures, delivered in 1865-1866, on the "Origin and Destiny of Man," branches far afield into Egyptology and Theology. In these subjects, which he merely touches, he shows the hand of a master.

A list, possibly imperfect, kindly prepared for me by Miss Morrison, is hereto appended of Prof. Lesley's contributions to our PROCEEDINGS. The titles number sixty-nine, on almost every subject conceivable. But besides these printed papers, he has often delighted the Society with impromptu remarks on matters pending. We all remember how brilliant these impromptu remarks were; how he illuminated what was obscure and explained what was confused. Sad to say, no record of these speeches has been preserved.

In the preparation of this brief and inadequate sketch, it has been my duty and pleasure to read again some of Prof. Lesley's publications, and I have been impressed more than ever with his amazing versatility, with the power of his imagination, illuminating every

subject with flashes of genius, with his perfect command of language and his profound thought.

His introductory chapters to the Final Report of the Second Survey (a most unequal work, part of which was written under stress of physical and nervous depression), particularly the chapters on "Geological Time," "Geological Space" and "The Appalachian Sea," with his other works previously mentioned, deserve record here. These show that he is not a narrow-minded, one-sided person; that his scope embraced the sphere of human knowledge, of course with limitations, as no man is omniscient. After all, his monument is to be found in the publications of the Second Geological Survey, 120 volumes, a library in itself.

It is our pride that he belongs to us. It is our pleasure that we have now a portrait of him which may serve to perpetuate his likeness to those who shall come after him, and who will reap, perhaps unwittingly, the harvest from seed which he has sown.

Communications Published in the TRANSACTIONS and PROCEEDINGS of the American Philosophical Society, by Prof. J. P. Lesley.

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The resolution of acceptance of the portraits was then unanimously adopted.

Dr. Frazer presented the report of the Officers and Council.

The Secretaries announced the death, on May 19, 1898, of the Rt. Hon. William Ewart Gladstone, at Hawarden, Chester, England.

Pending nominations Nos. 1432 and 1451 to 1468 were read and spoken to, and new nomination No. 1409 was read.

A paper by Dr. William C. Day, entitled, "The Production of an Asphalt Resembling Gilsonite by the Distillation of a Mixture of Fish and Wood," was read.

The Secretaries reported the election of the following as members :

Edward F. DeLancey, of New York.

Prof. William Harkness, of Washington.

Prof. C. P. Tielemans, Ph.D., of Leyden.

Alfred H. Allen, F.C.S., of Sheffield, Eng.

Boverton Redwood, F.R.S., of London.

Prof. Albert B. Prescott, LL.D., of Ann Arbor.

Prof. William H. Pettee, of Ann Arbor.

Prof. R. P. Whitfield, of New York.

H. LaBarre Jayne, of Philadelphia.

Lamar Gray Patterson, of Cumberland, Md.

Charles Platt, of Philadelphia.

John H. Converse, of Philadelphia.

Henry Grier Bryant, F.R.G.S., Lond., of Philadelphia.

Emlen Hutchinson, of Philadelphia.

Prof. G. Mangarini, Ph.D., of Rome.

The meeting was then adjourned by the presiding officer.